



Latitude:35.35694, Longitude:-91.79825

Route:16 Section:13 Log:6.39

Arnold Road ID:73x16x13xA, Arnold Log mile:6.377

District 05, 145 - White County

Owner: 1 - State Highway Agency

Inspection Direction: 1 - N to S

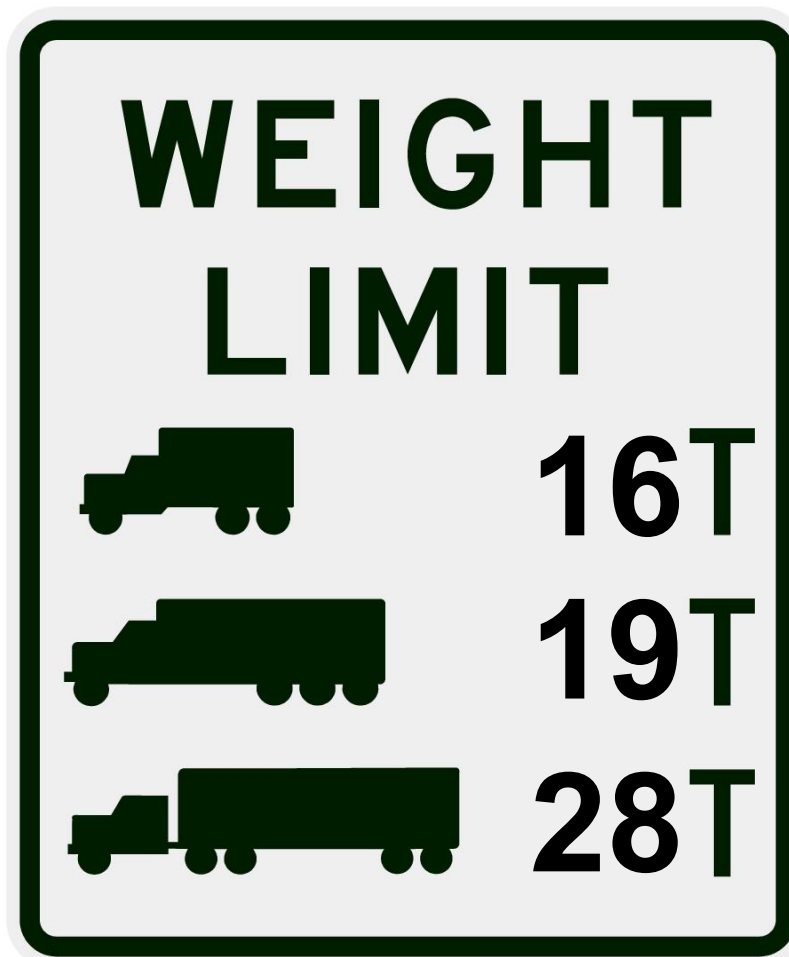
Bridge Posting Information

41 - Structure Open/Posted/Closed: P - Posted for load (may include other restrictions such as temporary bridges which are load posted)

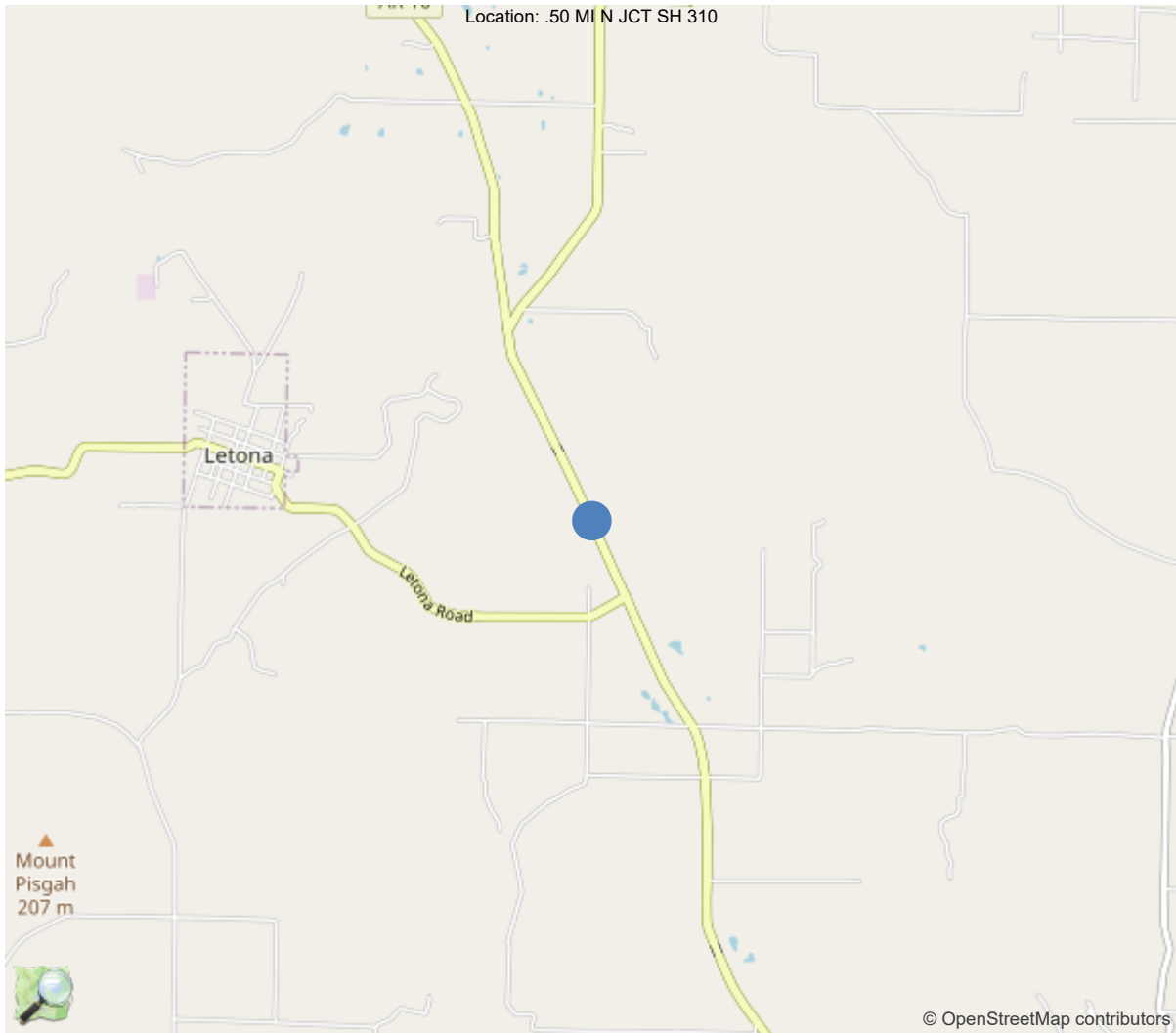
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	16	16	16
Code 9 (31 Tons)	19	19	19
Code 5 (40 Tons)	28	28	28

If calculated Capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner



30"x36" AR



35.35694, -91.79825



IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M0456
(5) Inventory Route	1
(2) Highway Agency District	05 - District 05
(3) County Code	145 - White County
(4) Place Code	0
(6) Features Intersected	BIG CREEK RELIEF
(7) Facility Carried	SH 16 White County
(9) Location	.50 MI N JCT SH 310
(11) Mile Point	6.39 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000016130
(16) Latitude	35.35694
(17) Longitude	-91.79825
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	122
Material	1 - Concrete
Type	22 - Channel beam
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	7
(46) No. of Approach Spans	0
(107) Deck Structure Type	2 - Concrete Precast Panels
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6 - Bituminous
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1958
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	5400
(30) Year of ADT	2018
(109) Truck ADT	4 %
(19) Bypass, Detour Length	19 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	19 ft
(49) Structure Length	133 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	23.6 ft
(52) Deck Width Out to Out	25.2 ft
(32) Approach Roadway Width (W/Shoulders)	22 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	25.6 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(111) Pier Protection	1 - Navigation protection not
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	6 - Rural Minor Arterial
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exists
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	1 - The inventory route is part
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	5
(59) Superstructure	4
(60) Substructure	4
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	24
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	15
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	P - Posted for load (may include
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	7
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	5 - Bridge foundations determined to
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	162 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 265
(96) Total Project Cost	\$ 882
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	7453
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	05/22/2024		
(91) Frequency	12		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			



General Observation

Elevation with Log Mile running to the Right.
Construction Job 5469.

58 - Deck (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Overall deck is in fair condition with areas of efflorescent cracks to undersurface at all spans.

59 - Superstructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Overall superstructure is in poor condition with spalls with rebar exposed & efflorescent cracks to legs at all spans.

60 - Substructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Overall substructure is in poor condition with spalls and cracks to columns & scour to footings at bents 1 - 6.

61 - Channel/Channel Protection (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.)

Heavy vegetation at all Spans on Left.

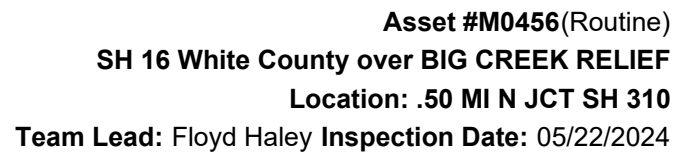
A-51 - Inspection Direction (1 - N to S)

Roadway with Log Mile running North to South.

A-108 - Load Rating Requested (No)

Super Structure - Girders have severe cracking with heavy efflorescence & spalling, most have exposed rebar with section loss. Some areas have lost adhesion to concrete.

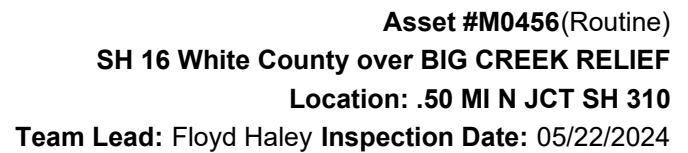
Substructure - Caps have severe cracking, delaminated areas and large spalls with exposed rebar, some with 100% section loss.

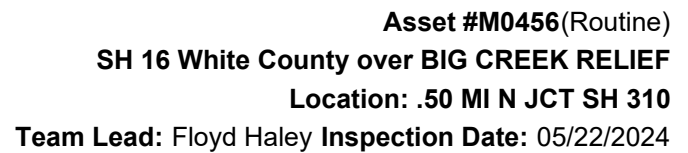


ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	3352	3150	164	38	0
1120	Efflorescence/Rust Staining	SF	202	0	164	38	0
510	Wearing Surfaces	SF	3126	2157	24	945	0
3210	Delam/Spall/Patched Area/Pothole	SF	29	0	24	5	0
3220	Crack (Wearing Surface)	SF	940	0	0	940	0
(16) Spans 1 - 7 has areas of efflorescent cracking to top flange undersurface in various locations throughout. 164' CS 2, 38' CS 3							
(510-16) Cracking to asphalt overlay @ all transverse & longitudinal unit joints @ all spans. Potholes forming to asphalt overlay.							
110	Reinforced Concrete Open Girder/Beam	LF	931	515	61	355	0
1080	Delamination/Spall/Patched Area	LF	9	0	3	6	0
1090	Exposed Rebar	LF	135	0	0	135	0
1120	Efflorescence/Rust Staining	LF	123	0	45	78	0
1130	Cracking (RC and Other)	LF	149	0	13	136	0
(110) Span 1: Unit 1 – 1' of rebar exposed to Rt leg. 1' CS 3 1' Longitudinal efflorescent crack to Rt leg. 1' CS 2 Unit 2 – 6' efflorescent cracks to Lt legs. 6' CS 3 Unit 3 - 11' longitudinal cracks Rt. legs. 11' CS 3 Unit 4 – 5' spalls with 5' rebar exp. 5' CS 3 9' longitudinal cracks to Rt legs. 9' CS 3 Unit 5 – 6' spalls with 6' rebar exposed to Lt & Rt legs. 6' CS 3 4' longitudinal cracks to Lt legs. 4' CS 3 Unit 6 – 5' spalls with 5' of rebar exposed to Lt & Rt. legs. 5' CS 3 4' longitudinal cracks to Lt legs. 4' CS 3 Unit 7 – 5' longitudinal cracks to Lt & Rt legs. 5' CS 3							
Span 2: Unit 1 – 19' efflorescent cracks to Lt & Rt legs. 19' CS 2 Unit 2 – spalls with 11' rebar to Lt & Rt leg. 11' CS 3 Unit 3 – 6' longitudinal efflorescent/rust cracks to Lt & Rt legs. 6' CS 3 Unit 4 – Spalls with 12' rebar exposed to Lt & Rt legs. 12' CS 3 4' longitudinal cracks to Lt & Rt leg. 4' CS 3, Unit 5 – spalls with 3' rebar to Lt & Rt. legs. 3' CS 3 4' horizontal crack to Lt leg. 4' CS 3 Unit 6 – 6' efflorescent cracks to Rt. legs. 6' CS 3 Unit 7 – 11' longitudinal cracks to Lt legs. 11' CS 3							
Span 3: Unit 1 – 19' efflorescent cracks to Lt & Rt. legs. 19' CS 2 Unit 2 – 8' of rebar exposed to Lt & Rt leg. 8' CS 3 9' longitudinal efflorescent Cracks to Lt & Rt. legs. 9' CS 3 Unit 3 – 10' rebar exposed to Lt & Rt leg. 10' CS 3 7' longitudinal cracks to Lt & Rt leg. 7' CS 3 Unit 4 – spalls with 10' rebar exposed to Lt & Rt leg. 10' CS 3							



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
	9' longitudinal efflorescent cracks to Lt & Rt. legs. 9' CS 2						
	Unit 5 – spall with 1' rebar exposed to Lt & Rt. legs. 1' CS 3 6' area of delaminated areas throughout unit. 6' CS 2 8' of longitudinal cracks to Lt & Rt legs. 8' CS 3						
	Unit 6 – spalls to Lt & Rt legs 12' rebar exposed. 12' CS 3 6' longitudinal cracks to Lt & Rt leg. 6' CS 3						
	Unit 7 – 3' longitudinal cracks to Lt/Rt legs. 3' CS 2						
	Span 4: 15' efflorescent cracks to Lt & Rt legs. 9' CS 3, 6' CS 2 Unit 2 - 6' of cracks to Lt & Rt legs. 6' CS 3						
	Unit 3 – 17' rebar exposed to Lt & Rt leg. 17' CS 3 3' longitudinal cracks to Lt & Rt legs. 3' CS 3						
	Unit 4 – 10' of rebar exposed to Lt & Rt legs. 10' CS 3 1' longitudinal cracks to Lt & Rt. legs. 1' CS 2						
	Unit 5 – OK						
	Unit 6 – OK						
	Unit 7 – OK						
	Span 5:						
	Unit 1 – 19' efflorescent cracking to Lt & Rt legs. 19' CS 3						
	Unit 2 – 5' rebar exposed to Lt & Rt leg. 5' CS 3 6' efflorescent cracking to Lt & Rt legs. 6' CS 3						
	Unit 3 – 2' minor spalls to Lt & Rt leg throughout. 2' CS 2						
	Unit 4 – 10' longitudinal cracks with rust to Lt & Rt. legs. 10' CS 3						
	Unit 5 – 2' longitudinal cracks with rust to Lt & Rt. legs. 2' CS 3						
	Unit 6 – spalls with 14' rebar exp. to Lt & Rt. legs. 14' CS 3 3' longitudinal cracks to Lt & Rt leg. 3' CS 3						
	Unit 7 – 2' of rebar exposed to Lt leg. 2' CS 3 1' efflorescent map cracking to Lt & Rt. legs. 1' CS 3						
	Span 6:						
	Unit 1 – OK						
	Unit 2 – 6' spalls with 6' rebar exposed to Lt & Rt. legs. 6' CS 3 8' efflorescent cracks to Lt & Rt. legs. 8' CS 3						
	Unit 3 – spalls with 12' rebar exp. to Lt & Rt. legs. 12' CS 3 3' longitudinal cracks to Lt & Rt leg. 3' CS 2 3' efflorescent cracks to Lt & Rt leg. 3' CS 3						
	Unit 4 – OK						
	Unit 5 – spalls with 5' rebar exposed to Lt & Rt legs. 5' CS 3 10' longitudinal efflorescent cracks to Lt & Rt leg. 10' CS 3						

[illegible]



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Bent 4: Scour 6" below & 12" back under footing for full length. 24' CS 3							
Bent 5: 25' Scour with footing exposed & undermined for 7' on Rt. end. 25' CS 2, 7' CS 3							
Bent 6: 24' of footing is exposed. 24' CS 2							
234	Reinforced Concrete Pier Cap	LF	156	45	27	84	0
1080	Delamination/Spall/Patched Area	LF	35	0	24	11	0
1090	Exposed Rebar	LF	40	0	0	40	0
1120	Efflorescence/Rust Staining	LF	3	0	3	0	0
1130	Cracking (RC and Other)	LF	33	0	0	33	0
(234) Bent 1: Back side of cap has large spalls with 17' rebar exposed 17' CS 3 15' horizontal crack to cap. 15' CS 3							
Bent 2: Back side of cap has 18' delaminated area. 18' CS 2 2' spall with 1' rebar exp. (spall) 2' CS 3, (rebar) 1' CS 3,							
Bent 3: Back side of cap has deep spall with 8' rebar exposed to Rt. end of cap. 8' CS 3							
Bent 4: 6' of horizontal cracks to backside of cap. 6' CS 3 Bottom of cap has 6' area of delaminated area. 6' CS 2 Spall with 9' rebar exposed to bottom Lt. end of cap. 9' CS 3							
Bent 5: Bottom of cap has large area of delam to bottom of cap with horizontal cracks & spall with 5' rebar exp. Ahead side of cap has Large area of delam. to ahead side of cap with horizontal cracking & spall with 5' of rebar exposed. (spall) 11' CS 3 (crack) 12' CS 3 (rebar) 5' CS 3							
Bent 6: Bottom of cap - 6' area of delam. 6' CS 2 Ahead side of cap has Horizontal cracks. 9' CS 2 Backside of cap has horizontal cracks. 1' CS 3 Spall to ahead side of cap on rt side. 1' CS 3							
304	Open Expansion Joint	LF	151	0	0	151	0
2350	Debris Impaction	LF	151	0	0	151	0
(304) Joint is not visible due to asphalt overlay.							
330	Metal Bridge Railing	LF	266	0	256	10	0
1000	Corrosion	LF	256	0	256	0	0
7000	Damage	LF	10	0	0	10	0
515	Steel Protective Coating	SF	798	0	80	0	718
3440	Effectiveness (Steel Protective Coatings)	LF	798	0	80	0	718
(330) Metal rail rusting. Spalls, some with rebar exposed, & cracking to curbs.							



Elevation with log mile going right.



Roadway with log mile looking south.



Vertical crack to Lt side of column 2 @ bent 2.



Spall with rebar exposed with 2' of rebar not adhered to unit 4, span 3.



Typical spalls with rebar exposed to units @ all spans



Undersurface @ span 4



Rt channel



Lt channel



15' of horizontal crack to Abutment 2.



Load posting sign @ abutment 2.



Typical cracks to wearing surface



Overall deck



Load posting sign @ abutment 1.



Vertical crack to backside of cap near centerline @ bent 4.



Typical spalls with rebar exposed to girders @ all spans.

Maintenance Needs

Date Reported: 04/20/2012

Priority: B - Pressing

Type of Work: Substructure Repair

Status: Assigned

Component: Substructure

Deficiency Description

Large delaminating areas, spalls & cracking to all Caps.

Bent 1 - Horizontal cracks & spalls with 10' rebar exposed.

Large deep spall to Lt column.

Bent 2 - Horizontal cracks & spalls with 1' rebar exposed.

Bent 3 - Heavy cracking, areas of delaminating & spalls with 8' rebar exposed.

Bent 4 - Areas of delamination & spalls with 13.5' rebar exposed.

Column 2 has large deep spalls with 6' of rebar exposed.

Bent 5 - Large areas of delamination & spalls to ahead side of cap with 5' of rebar exposed.

Bent 6 - Large areas of delamination.

Remarks



05/22/2024
Bent 1 - Horizontal cracks & spalls with 10' rebar exposed.



05/22/2024
Bent 3 - Heavy cracking, areas of delaminating & spalls with 8' rebar exposed.



05/22/2024

Bent 4 - Column 2 has large deep spalls with 6' of rebar exposed.



05/22/2024

Bent 4 - Areas of delamination & spalls with 13.5' rebar exposed.



05/22/2024

Bent 5 - Large areas of delamination & spalls to ahead side of cap with 5' of rebar exposed.



05/02/2023

Bent 1 - Horizontal cracks & spalls with 10' rebar exposed.



05/02/2023

Bent 3 - Heavy cracking, areas of delaminating & spalls with 10' rebar exposed.



05/02/2023

Horizontal cracks to rt side of cap near large spall.



Bent 4 - Column 2 has large deep spalls with 6' of rebar exposed.



Bent 4 - Areas of delamination & spalls with 13.5' rebar exposed.



Bent 5 - Large areas of delamination & spalls to ahead side of cap with 5' of rebar exposed.

Maintenance Needs

Date Reported: 05/21/2018

Priority: B - Pressing

Type of Work: Repair (General)

Status: Assigned

Component: Bridge

Deficiency Description

Scoured below bottom and back under footings @ Bents 1, 4 & 5.

Remarks



Scoured below bottom and back under footings @ Bents 1, 4 & 5. Bent 5



Scoured below bottom and back under footings @ Bents 1, 4 & 5. Rt side of bent 5.

Maintenance Needs

Date Reported: 04/20/2012

Priority: C - Important

Type of Work: Superstructure Repair

Status: Assigned

Component: Superstructure

Deficiency Description

Longitudinal cracking with rebar exposed to Girders at all Spans

Efflorescent map cracking to Units at all Spans.

Heavy efflorescent map cracking to Unit 2 at Span 1.

Remarks



05/22/2024

Longitudinal cracking with rebar exposed to Girders at all
Spans Unit 6, Rt leg



05/02/2023

Longitudinal cracking with rebar exposed to Girders at all
Spans
Unit 4, span 3.



Longitudinal cracking with rebar exposed to Girders at all
SpansUnit 6, span 6.

Maintenance Needs

Date Reported: 04/20/2012

Priority: C - Important

Type of Work: Repair (General)

Status: Assigned

Component: Bridge

Deficiency Description

Scour with Footings exposed at Bents 2, 3, & 6.

Remarks



Scour with Footings exposed at Bents 1 - 6 Bent 5



Scour with Footings exposed at Bents 2, 3, & 6. Bent 2.

Maintenance Needs

Date Reported: 05/18/2016

Priority: C - Important

Type of Work: Repair (General)

Status: Assigned

Component: Bridge

Deficiency Description

Heavy vegetation at all Spans on Left.

Remarks



Heavy vegetation at all Spans on Left.



Heavy vegetation to Left side at all Spans.



Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	No
A-55 - Deck Washing Needed	No
A-56 - Joint Cleaning/Flushing Needed	No
A-57 - Beam End and Bearing Paint Needed	No
A-58 - Cap Cleaning/Flushing Needed	No
A-59 - Joint Repair Needed	No
A-60 - Full Beam Painting Needed	No
A-61 - Polymer Overlay Advised	No
A-62 - Hydro and LMC Advised	No
A-63 - Missing/Incorrect Log Mile Signage	No
A-64 - Vegetation Removal Requested	No

A-54 - Sealable Deck Cracks (No)

A-55 - Deck Washing Needed (No)

A-56 - Joint Cleaning/Flushing Needed (No)



Asset #M0456(Routine)
SH 16 White County over BIG CREEK RELIEF
Location: .50 MI N JCT SH 310
Team Lead: Floyd Haley Inspection Date: 05/22/2024

A-57 - Girder End and Bearing Painting Needed (No)

A-58 - Cap Cleaning/Flushing Needed (No)

A-59 - Joint Repair Needed (No)

A-60 - Full Girder Painting Needed (No)

A-61 - Polymer Overlay Advised (No)

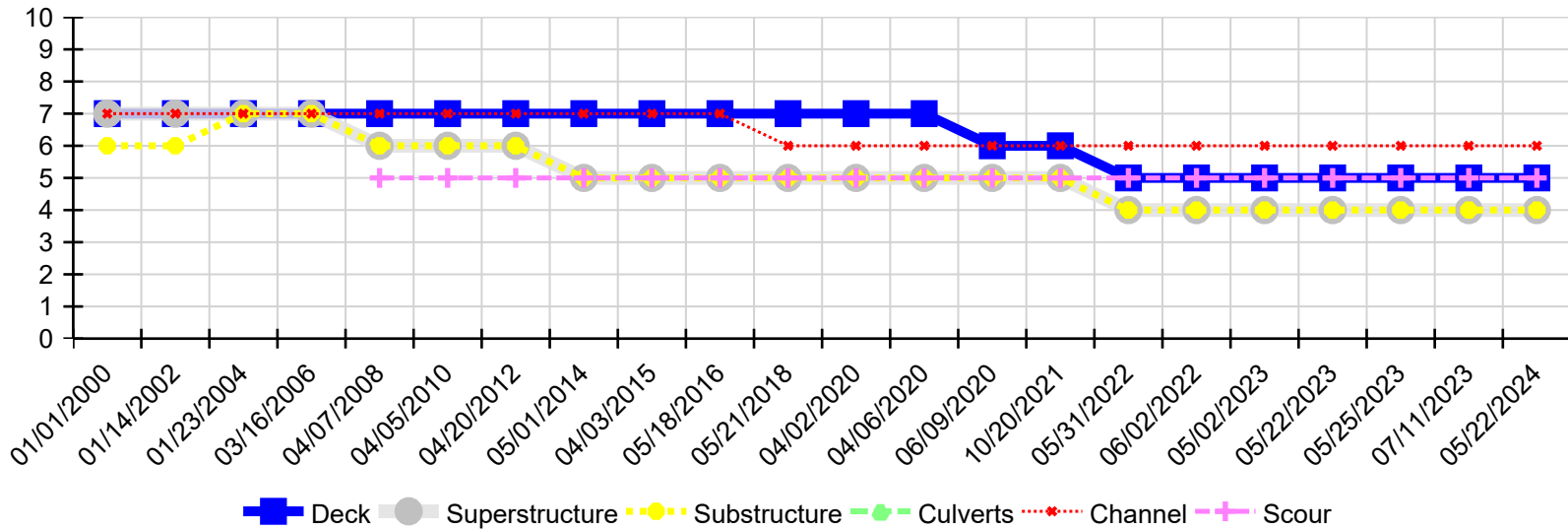
A-62 - Hydro and LMC Advised (No)

A-63 - Missing/Incorrect Log Mile Signage (No)

A-64 - Vegetation Removal Requested (No)



Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
05/22/2024	5	4	4	N	6	5
07/11/2023	5	4	4	N	6	5
05/25/2023	5	4	4	N	6	5
05/22/2023	5	4	4	N	6	5
05/02/2023	5	4	4	N	6	5
06/02/2022	5	4	4	N	6	5
05/31/2022	5	4	4	N	6	5
10/20/2021	6	5	5	N	6	5
06/09/2020	6	5	5	N	6	5
04/06/2020	7	5	5	N	6	5
04/02/2020	7	5	5	N	6	5
05/21/2018	7	5	5	N	6	5
05/18/2016	7	5	5	N	7	5
04/03/2015	7	5	5	N	7	5
05/01/2014	7	5	5	N	7	5
04/20/2012	7	6	6	N	7	5
04/05/2010	7	6	6	N	7	5
04/07/2008	7	6	6	N	7	5
03/16/2006	7	7	7	N	7	N
01/23/2004	7	7	7	N	7	N
01/14/2002	7	7	6	N	7	N
01/01/2000	7	7	6	N	7	N